

NASA launches weather-climate satellite

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The National Polar-orbiting Operational Environmental Satellite System Preparatory Project (NPP) satellite being enclosed in the protective fairing atop the Delta II rocket. The US space agency on Friday launched a first-of-its kind satellite that will send back data on weather and climate to help forecasters predict major storms and other changes in the environment.

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"Liftoff of the Delta II with the NPP satellite, blazing the way in new technology for climate research and weather forecasting," said NASA commentator George Diller.

The \$1.5 billion National Polar-orbiting Operational Environmental Satellite System Preparatory Project (NPP) took off aboard a Delta II rocket from Vandenberg Air Force Base in California at 2:48 am local

time (0948 GMT).

The satellite will carry five instruments to study temperature and water in the atmosphere, how clouds and aerosols affect temperature, and how plants on land and in the ocean respond to environmental changes.

It is one of 14 Earth observation missions currently being managed by NASA. Project managers said they hope it will operate for about five years.

The blast-off went according to plan and the protective payload fairing on the rocket separated from the NPP spacecraft on time about six minutes into the flight.

"Smooth ride," said flight commentator Steve Agid.

The satellite should help forecasters and emergency monitors to better prepare the public for severe weather events, between five and seven days in advance, the National Oceanic and Atmospheric Administration said.

The NPP -- which will circle the Earth at a height of 512 miles (820 kilometers) in a polar orbit -- will help fill in data gaps left by European weather observatories, NOAA scientist Louis Uccellini said earlier this month.

He said the satellite was carrying infrared and microwave instruments that are "basically equivalent to a slight improvement over what we are using with the European satellites."

The European Space Agency last year launched CryoSat-2, the third so-called "Earth Explorer" satellite put into orbit by the agency in just over a year.

The Gravity field and Ocean Circulation Explorer mission launched in March 2009 and the Soil Moisture and Ocean Salinity mission followed in November.

All three missions are designed to study the effect of human activity on Earth's natural processes.

NASA scientists described NPP, an SUV-sized satellite, as the first to provide observations for both short term weather forecasters and long term climate researchers.

"In short, NPP is better observations for better predictions to make better decisions," NPP project scientist Jim Gleason said.

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